UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC. and

LG ELECTRONICS U.S.A., INC.

Petitioners

v.

TOSHIBA SAMSUNG STORAGE TECHNOLOGY KOREA CORPORATION
Patent Owner

Patent No. RE43,106

DECLARATION OF MASUD MANSURIPUR, PH.D.

LG Electronics, Inc. et al.
EXHIBIT 1012
IPR Petition for

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TABLE OF CONTENTS

I. Qualifications, Background, and Experience 1
II. Scope of Assignment 3
III. Materials Considered.....4
IV. Summary of Opinions 6
V. Legal Principles used in Analysis.....6
1. Patent Claims in General.....6
2. Person of Ordinary Skill in the Art 7
3. Claim Construction.....8
4. Prior Art.....9
5. Patentability.....10
VI. A Person of Ordinary Skill in the Relevant Art 13
1. Relevant Field.....13
2. Person of Ordinary Skill in the Art 13
VII. Background of the Relevant Technology.....15
VIII. The '106 Patent 21
1. The Claims of the '106 Patent.....25
2. Problem Addressed by the '106 Patent 32
3. Solution Set Forth in the '106 Patent 33
IX. Claim Construction.....37
X. Obviousness Analysis Regarding the Admitted Prior Art and Katayama...40
1. Summary of Opinion.....40
2. Summary of Admitted Prior Art.....42
3. Summary of Katayama.....48
4. The combination of Katayama and the Admitted Prior Art.....49

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5. Integration of the Diffractive Element and Objective Lens 52
6. Claim 4 54
7. Claim 5 66
8. Claim 6 69
9. Claim 20 71
10. Claim 21 78
11. Claim 22 80
12. Claim 23 83
13. Claim 24 85
14. Claim 25 86
15. Claim 26 88
16. Claim 27 89
17. Claim 36 91
18. Claim 37 101
19. Claim 38 102
20. Claim 39 115
21. Claim 40 118
22. Claim 41 119
23. Claim 42 120
24. Claim 43 131
25. Claim 44 132
26. Claim 45 133
27. Claim 46 134
28. Claim 47 136
29. Claim 48 152
30. Claim 49 153
31. Claim 50 154

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32. Claim 51 166
33. Claim 52 167
34. Claim 53 169
35. Claim 54 170
36. Secondary Considerations 172
37. Claim Charts 177
XI. Conclusion 177

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1. My name is Masud Mansuripur. I am a Professor of Optical Sciences and Chair of Optical Data Storage in the College of Optical Sciences at the University of Arizona. I understand that my declaration is being submitted in connection with a Petition for *Inter Partes* Review of U.S. Patent No. RE43,106 (the "'106 patent") (Ex. 1001).

I. Qualifications, Background, and Experience

2. I received a Bachelor of Science degree in Electrical Engineering from Arya Mehr University (Iran) in 1977, a Master of Science degree in Electrical Engineering from Stanford University in 1978, a Master of Science degree in Mathematics from Stanford University in 1980, and a Ph.D. in Electrical Engineering from Stanford University in 1981.

3. I have authored four scientific and technical books and authored or co-authored over 250 scientific and technical journal articles; I am listed as an inventor on eight U.S. patents, of which six are directed to optical data storage, and I have over 30 years of experience with the optical data storage industry.

4. While a graduate student at Stanford University from 1978 to 1981, I worked as a consultant for Xerox Palo Alto Research Center (PARC) and also worked at Xerox Research Centre of Canada as a member of research staff. At Xerox, I was involved with developing a rewritable optical disc for massive storage of digital information. After receiving my Ph.D. degree from Stanford, I

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